

RTCA Special Committee 209
ATCRBS/Mode S Transponder MOPS
Meeting #7
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Changes, Comments, and Clarifications in Section 2.2 Requirements

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SUMMARY
This paper contains additional revisions or clarifications to the requirements of Section 2.2 of DO-181D, version 1.0.

1.0 Introduction

This Working Paper provides additional recommended revisions or clarifications for the requirements section 2.2 of draft version 1.0 of DO-181D

2.0 Proposed Section 2.2 Changes:

2.2.13.3.1 Uplink Interface

Was:

a. Information Content – The interface shall transfer the entire content of both short and long accepted uplink interrogations (with the possible exception of the AP Field) except for interrogations UF=0, 11, 16 and a UF=24 interrogation containing a request for a downlink ELM transfer (RC=3).

Becomes:

a. Information Content – The interface shall transfer, when possible, the entire content of both short and long accepted uplink interrogations (with the possible exception of the AP Field) except for interrogations UF=0, 11, 16 and a UF=24 interrogation containing a request for a downlink ELM transfer (RC=3).....

2.2.19.1 Minimum Level 2 Transponder Requirements

The operational functions described in §1.4.3.b require that this transponder **shall**, in addition to the functions of the Level 1 transponder:

was:

a. Process uplink and downlink formats UF=DF=16, 20 and 21 (Figure 2-15). The formats UF=DF=16 are optional.

Becomes:

a. Process uplink and downlink formats UF=DF=16, 20 and 21 (Figure 2-15). The formats UF=DF=16 are optional: DF = 16 is available in transponders supporting Crosslink capability (see 2.2.14.4.7). UF =16 is supported by transponders connected to an on-board operational TCAS.

2.2.19.1.12.7 Coding of the Data Link Capability Report

Was:

Note 1: The format of the data link capability report is defined in RTCA/DO-218.

Becomes:

Note 1: The format of the data link capability report is defined in Appendix B.

2.2.19.1.13 Aircraft Identification Reporting and AIS Aircraft Identification Subfield in MB

If a transponder is equipped for AIS reporting (Aircraft Identification Reporting), it **shall** report the information in the AIS subfield as described below.

Was:

a. Aircraft Identification Reporting

If so equipped, the transponder **shall** report the aircraft identification (aircraft radio call sign) used in the flight plan. This may be either the trip number assigned to commercial flights or the aircraft registration number, where applicable.

***Note:** There are indications that a firm requirement may exist for the AIS feature in European Airspace. In such usage, the identification number entered in field 7 of the ICAO flight plan format **shall** be transmitted in the AIS subfield.*

Becomes:

a. Aircraft Identification Reporting

If so equipped, the transponder **shall** report the aircraft identification (aircraft radio call sign) used in the flight plan. This **shall** be either the [identification number entered in field 7 of the ICAO flight plan](#), or the aircraft registration number, [if the ICAO flight plan is not available](#).

~~***Note:** There are indications that a firm requirement may exist for the AIS feature in European Airspace. In such usage, the identification number entered in field 7 of the ICAO flight plan format **shall** be transmitted in the AIS subfield.*~~